

Claims

1. Spherical coated capsule comprising  
(a) a coating-free capsule having (i) a liquid or viscous core and (ii) a  
5 seamless solid shell surrounding this core, and  
(b) a seamless, solid coating surrounding said coating-free capsule, wherein
- the diameter of the coated capsule is in the range of 5 - 9 mm,
  - the solid coating comprises at least one sugar or sugar-alcohol in an  
amount from about 30 - 90% (m/m), based on the total mass of the coated  
10 capsule,
  - the diameter of the coating-free capsule is in the range of 3 - 7 mm,
  - the thickness of the shell of said coating-free capsule is in the range of 20 -  
200  $\mu$ m,
  - the ratio of shell thickness to diameter of said coating-free capsule is in the  
15 range of 0.004 - 0.04 ,
  - the shell of said coating-free capsule contains 70 - 90 % (m/m) gelatine or  
alginate and 10 - 30 % (m/m) plasticiser, based on the solids content of  
said shell, and
  - the core has a flavouring content in the range of 1 - 100 % (m/m), based  
20 on the total mass of the core.
2. Spherical coated capsule according to claim 1, wherein an intermediate  
layer or intermediate layers are arranged between said shell and said coating,  
for improving the adhesion between shell and coating.
- 25 3. Spherical coated capsule according to claim 2, wherein the intermediate  
layer consists of (i) gum arabic, maltodextrin, starch, sugar, sugar alcohol,  
gelatine, or a mixture thereof, and, optionally, (ii) water.
- 30 4. Spherical coated capsule according to any of claims 1-3, the coating  
having one or more outer layers providing a smooth surface, the outer layer or  
layers consisting of (i) a sugar and/or sugar alcohol, and, optionally, water.

5. Capsule according to any preceding claim, characterised in that
- the diameter of the coating-free capsule is in the range of 4.5 - 6.5 mm, preferably 4.5 - 5.5 mm,
  - the thickness of the shell is in the range of 50 - 150  $\mu\text{m}$ , preferably 50 - 90  $\mu\text{m}$ ,
  - the shell thickness to capsule diameter ratio is in the range of 0.01 - 0.03, preferably 0.01 - 0.02.
6. Capsule according to any preceding claims, characterised in that the shell is prepared from a mixture containing gelatine and plasticiser which has a gel point in the range between 15 °C and 60 °C, preferably between 20 °C and 40 °C and particularly preferentially between 25 °C and 35 °C.
7. Capsule according to any preceding claim, characterised in that (a) a gelatine having a Bloom value of at least 200, preferably a Bloom value in the range of 240 - 300, is used for the preparation of the shell.
8. Capsule according to Claim 7, characterised in that in addition (b) a gelatine having a Bloom value of 0 and/or fish gelatine having a Bloom value of < 200 is used.
9. Capsule according to any preceding claim, wherein the fish gelatine is a cold water fish gelatine and/or has a gel point of < 20 °C.
10. Capsule according to any preceding claim, characterised in that the liquid or viscous core contains a sweetener that has been selected from the group that consists of thaumatin, neohesperidine, miraculin and mixtures thereof.
11. Capsule according to any preceding claim, characterised in that the concentration of the plasticiser in the shell is 10 - 30 % (m/m), preferably 15 - 20 % (m/m), based on the total solids content of the shell.

12. Capsule according to any preceding claim, characterised in that the plasticiser comprises one or more polyols, preferably selected from the group that consists of glycerol, propylene glycol, sorbitol and maltitol.
- 5 13. Capsule according to any preceding claim, characterised in that the gelatine has been selected from the group that consists of pig gelatine, cattle gelatine, chicken gelatine, fish gelatine and mixtures thereof.
- 10 14. Capsule according to any preceding claim, characterised in that the shell contains a sweetener that preferably has been selected from the group that consists of sucralose, aspartame, acesulfame K, thaumatin, Na saccharine, neohesperidin and mixtures thereof.
- 15 15. Capsule according to any preceding claim, characterised in that the shell contains gellan gum.
16. Capsule according to any preceding claim, characterised in that the shell contains 0.4 - 3 % (m/m) gellan gum, based on the solids content of the shell.
- 20 17. Method for the preparation of a capsule according to one of the preceding claims, with the following steps:
- pumping a liquid or viscous core material and a gelatine or alginate-containing curable shell mixture simultaneously through a concentric multi-component nozzle so that they drip into a cooling liquid with the formation
  - 25 of a capsule,
  - drying said capsule, and
  - coating the resulting dried capsule, optionally only after applying an intermediate layer or intermediate layers to the dried capsule.
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